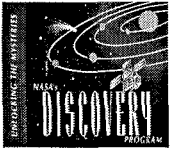


Autonomous Navigation during Deep Impact Encounter with Tempel 1

AutoNav

Optical Navigation Team

**Jet Propulsion Laboratory
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Overview



- **Fundamentals of Optical Navigation**
 - Maneuver calculation
 - Accuracy of optical measurements
 - Autonomous optical navigation for DS1
- **Deep Impact Mission Overview**
 - Flight system description
 - Interplanetary trajectory
 - Mission objectives
- **Encounter Operations**
 - Encounter schematic
 - Why is Autonomous Navigation (AutoNav) necessary?
 - Key Science epochs
 - AutoNav expected performance
- **Earth Flyby Testing Operations**
 - Description of Earth Flyby geometry
 - Testing of AutoNav system at Earth Flyby
 - Testing opportunities and targets